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### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

Vogler et al.

Serial No.:

10/646,483

Group Art Unit:

1733

Filed:

August 22, 2003

Examiner:

John L. Goff II

For:

CELLULOSE ESTER BASED PRODUCTS AND METHODS FOR MAKING THEM

Mail Stop AF Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

#### RETRANSMITTAL OF REPLY BRIEF

Appellants gratefully acknowledge the Examiner's willingness to enter this Resubmitted Reply Brief, as indicated in a phone call with the Examiner on November 27, 2007. In response to the Examiner's Answer dated June 25, 2007, and the Office communication dated November 20, 2007 indicating that the Reply Brief submitted on August 24, 2007 was not considered because it included new evidence, Appellants therefore respectfully submit herewith a Resubmitted Reply Brief pursuant to 37 C.F.R. § 41.41. If there are any fees due in connection with the filing of this Reply Brief that are not enclosed herewith, please charge such fees to our Deposit Account No. 05-0221

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Respectfully submitted,

27 November 2007

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**CERTIFICATE OF MAILING UNDER 37 CFR 1.8(a)** 

I hereby certify that this paper (along with any paper(s) referred to as being attached or enclosed) is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop AF, Commissioner for Patents, P.O. Box.1450, Alexandria, VA 22313-1450.

Jodi L. Owenby

Date



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#### **RESUBMITTED REPLY BRIEF UNDER 37 C.F.R. § 41.41**

Pursuant to 37 C.F.R. § 41.41, Appellants present this Resubmitted Reply Brief in response to the Examiner's Answer dated June 25, 2007.

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#### I. INTRODUCTION

Appellants submit this Reply Brief to specifically address erroneous assertions set forth in the Examiner's Answer, and to briefly review the law of obviousness in view of the recent holding in KSR Int'l Co. v. Teleflex, Inc., 127 S.Ct.. 1727; 82 USPQ2d 1385 (2007), but without unduly repeating arguments or addressing matters already dealt with in the Appeal Brief.

#### A. Rejections maintained

Despite the arguments presented in the Appeal Brief, the Office has maintained the following rejections: of claims 12-14 and 17-21 under 35 U.S.C. § 103(a) as being unpatentable over Cobb, U.S. Pat. No. 3,025,861, ("Cobb '861") in view of McIntosh, U.S. Pat. No. 1,631,750; of claims 1-5, 8, and 11 under 35 U.S.C. § 103(a) as being unpatentable over Cobb '861 in view of McIntosh and Pearman, U.S. Pat. No. 3,426,764; of claim 15 under 35 U.S.C. as being unpatentable over Cobb '861 and McIntosh as applied to claims 12-14 and 17-21, and further in view of Cobb et al., U.S. Pat. No. 3,106,501 ("Cobb et al. '501"); and of claim 9 under 35 U.S.C. § 103(a) as being unpatentable over Cobb '861, McIntosh, and Pearman as applied to claims 1-5, 8, and 11, and further in view of Cobb et al. '501.

### B. Obviousness inquiry in light of KSR Int'l Co. v. Teleflex, Inc.

Several basic factual inquires must be made in order to determine the obviousness or non-obviousness of claims of a patent application under 35 U.S.C. § 103. These factual inquiries, set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), require the Examiner to:

- (1) Determine the scope and content of the prior art;
- (2) Ascertain the differences between the prior art and the claims in issue;
- (3) Resolve the level of ordinary skill in the pertinent art; and
- (4) Evaluate evidence of secondary considerations.

The obviousness or non-obviousness of the claimed invention is then evaluated in view of the results of these inquiries. *Graham*, 383 U.S. at 17-18, 148 USPQ 467; see also *KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct.. 1727, 1734; 82 USPQ2d 1385, 1391 (2007).

Thus, in order to satisfy the initial burden of establishing a prima facie case of obviousness, the Examiner must first show that the prior art references teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The Examiner must also show that there is some suggestion or motivation, either in the references or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references. *In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998). The Supreme Court, in the recent *KSR* case, recognized that a showing of "teaching, suggestion, or motivation" could provide helpful insight in determining whether the claimed subject matter is obvious under Section 103(a). *KSR*, 127 S.Ct. at 1740-1742.

In addition, the Supreme Court mandates that "[t]o facilitate review, this analysis [of whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue] should be made explicit." Id. (citing *In re Kahn*, 441 F.3d 977, 988 (Federal Circuit, 2006) ("[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some *articulated reasoning* with some *rational underpinning* to support the legal conclusion of obviousness") (emphasis added)).

Following the KSR decision, the Office issued a memorandum to its technology center directors on May 3, 2007, indicating that "in formulating a rejection under 35 U.S.C. § 103(a) based upon a combination of prior art elements, it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed." (Emphasis in original).

#### II. ARGUMENT IN REPLY

A. With respect to the rejection of claims 12-14 and 17-21, the reasons articulated in the Examiner's Answer to combine Cobb '861 with McIntosh have no rational underpinning, the only compelling reason being found in Appellants' own disclosure.

The Examiner's Answer asserted that it would have been obvious to form the paper of Cobb '861 coated with cellulose acetate, using the method of forming paper having cellulose acetate incorporated therein as shown by McIntosh, "such that the paper for wrapping the aggregation of fibers is *improved in moisture repellency and durability* and has the further advantage of *eliminating the step of coating the paper* with the cellulose acetate." Page 4, line 20 to page 5 line 3 (emphasis added). This assertion of obviousness is based on the characterization in the Examiner's Answer that McIntosh teaches at page 1, lines 4-40 that "incorporating the cellulose acetate into the paper *as opposed to coating the paper with a resin*, i.e. by impregnating the paper with the resin, intimately and uniformly disperses the cellulose acetate throughout the fibers of the paper as well as on the surface of the paper to form a *moisture repellant and durable* product with the further advantage of *not having to have a step of coating the paper with the resin* in a process of bonding with the paper." Page 4, lines 13-20 (emphasis added).

Appellants respectfully submit that there is no indication in either of the references cited, or in the art generally, that improving the moisture repellency and durability of the paper of Cobb '861 would be an advantage. While moisture repellency and durability are clearly reasons why the "paper product" of McIntosh was produced in the fashion indicated in McIntosh, that does not provide any reason, suggestion, or motivation to modify the paper of Cobb '861 in that fashion. Indeed, it is common knowledge that moisture repellency is a feature that interferes with a common function of most paper, that of receiving, absorbing, and retaining ink applied by a writing instrument such as a pen or a brush. Similarly, the function of the paper disclosed in the Pearman reference would likewise be destroyed if the

paper repelled moisture, since the paper of Pearman is intended for use as a filtration material (column 2, lines 12-15) that allows moisture to pass through it (column 2, lines 47-49). Because there is no indication in the references, or in the art generally, that providing moisture repellency and durability to the paper of Cobb '861 would be an advantage, Appellants submit that the reasons articulated in the Examiner's Answer have no rational underpinning.

Appellants respectfully submit further that a fair reading of page 1, lines 4-40 of McIntosh does not suggest that the process described is equivalent to preparing a "coating" as in Cobb '861, or as the word is commonly understood.

Applicants acknowledge the Examiner's indication at page 4 of the Examiner's Answer that Cobb '861 teaches "coating a side of the paper with cellulose acetate." This construction of Cobb is consistent with Appellants' understanding of the cited teachings. This is also consistent with the passage of Cobb '861, at page 1, lines 58-60, which states that an object of that invention is to provide "a simple but practical method of making improved wrapped type of filters of the class indicated." The invention is summarized in column 1, lines 61-63, as the use of a plug (filament-filter) wrap paper coated with an adhesive (emphasis added). There being no indication that elaborate techniques are required to obtain the coating of Cobb '861, one would expect that an ordinary meaning of "coating" was intended, that is, a coat or layer over a surface. Similarly, the word coat is often also used as a verb, that is, to provide or cover with a coat or to cover with a layer of something. The intended meaning is confirmed by Fig. 1 of Cobb '861, in which the "adhesive coating over entire interior of wrap" is depicted as a discrete layer covering the interior surface of the wrap.

In contrast, Appellants note that the process of McIntosh is equated in that document not with "coating" but with "impregnation," and respectfully submit that the construction of the word "impregnate" proposed in the Examiner's Answer is inconsistent with commonly understood definitions of the word in this context. The word is commonly used, for example, in the sense of "to fill or saturate; to cause to be permeated." If the results suggested by this definition could be achieved merely by coating paper, as taught in Cobb '861, one wonders why McIntosh would have gone to the trouble of the elaborate process quoted in the Examiner's Answer, set out beginning at page 1, line 60 and ending at page 2, line 9 of that document, and further discussed below, that involves incorporating a cellulose ester during paper processing, and afterward treating the paper at high temperatures and pressures in the presence of steam for an extended period of time.

Indeed, having equated "coating" with "impregnating" for the purpose of asserting that claims 12-14 and 17-21 are obvious in view of the combination of Cobb' 861 with McIntosh, the Examiner's Answer goes on to take the position, at page 9, lines 10-11, that "McIntosh teaches incorporating the ester into the paper during manufacture is *preferable* to coating (emphasis added)." Appellants agree that the process

of McIntosh is different than coating. Whether the process of McIntosh is preferable to coating would, of course, depend upon the intended use of the product.

As noted in the Appeal Brief, it is not Cobb '861 nor McIntosh which suggests that coating a paper with a cellulose ester may be, for some purposes, functionally equivalent with incorporating the ester into the paper during paper manufacture, but rather Appellants' own disclosure. Because the reasons for combining the references cited in the Examiner's Answer have no rational underpinning in the references, or in the art generally, but can be found only in Appellants' own disclosure, Appellants respectfully request that the rejection be overruled.

# B. McIntosh does not teach a paper product comprising pulp or rag fibers and cellulose acetate incorporated therein where the cellulose acetate functions as an adhesive

Contrary to the statement in the Response to Argument portion of the Examiner's Answer, found on page 7, lines 17-18 of the Examiner's Answer, McIntosh does *not* teach a paper product comprising pulp or rag fibers and cellulose acetate incorporated therein where the cellulose acetate functions as an adhesive. Appellants respectfully submit that this statement is entirely unsupported by the record.

# C. There is no basis for the assertion that the paper product of McIntosh is analogous to the coated paper product taught by Cobb

The Examiner's Answer, quoting McIntosh, beginning on page 10, second line from the bottom, asserts that "McIntosh teaches, <u>The single sheets</u>, if they are of the desired thickness are vulcanized per <u>se</u>, or a laminated product is built up by superimposing one sheet upon another until the requisite thickness is obtained. <u>In either case</u>, the heat and pressure step is accomplished in the same manner.' (emphasis added) and 'The sheets are placed between the heated platens of a suitable press whereby they are subjected to pressure such as one thousand pounds per square inch at a temperature of one hundred and twenty-five pounds of steam. <u>This heat and pressure are maintained for a time sufficient to cause the cellulose ester to fuse throughout the fibrous mass and to flow completely over the surface forming a continuous coating."</u> The Examiner goes on to conclude based on the cited passage that the paper thus formed is considered analogous to the paper product (2 and 3) of Figure 1 of Cobb '861.

There is no basis for the assertion that the two are analogous, nor indeed, what features they might be expected to have in common. The word "vulcanization" is commonly used to describe a process of treating crude rubber with sulfur or its compounds and subjecting it to heat in order to make it nonplastic and increase its strength and elasticity. Another more generally use is as a process somewhat like the one just described, for hardening a substance. If the two are indeed analogous, one wonders why the inventors of McIntosh would not simply have coated the paper product with the cellulose ester rather than incorporating it during paper processing, and afterward treating the paper at high temperatures and

pressures in the presence of steam for an extended period of time. Appellants respectfully submit that there is no basis for the assertion that the paper product of McIntosh is analogous to the coated paper of Cobb '861, and submit that this assertion should be disregarded.

In view of the arguments set forth above, Appellants believe there is no proper basis for the rejection of the claims and request that the rejection of the claims be overruled.

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